

REMARKS

At the outset, the Applicants wish to thank the examiners for the courtesy shown to their representative during telephone interviews on August 23 and 24, 2010. This summary is provided to meet the requirements of MPEP § 713.04. The participants were Examiner A. Balaoing, SPE M. Santiago, and the undersigned. The issues and claims discussed were the rejections of claims 38 and 61 as being unpatentable over Love et al. (US 2004/0219920) in view of Legg et al. (US 6 414 947). Also, brief mention was made of the rejections of dependent claim 49 under 35 USC §103(a), as being unpatentable over Love et al. (US 2004/0219920) in view of Legg et al. (US 6 414 947), and further in view of Seo et al. (US 2003/01851559), and dependent claim 50 under 35 USC §103(a), as being unpatentable over Love et al. (US 2004/0219920) in view of Legg et al. (US 6 414 947), and further in view of Zhang et al. (US 2005/0094600). Agreement was reached in that the Examiners said that the presently applied art fails to teach or suggest, alone or together, the method of claim 38 including determining "uplink resources for the mobile terminal applicable to individual HARQ processes to be used by the mobile terminal for uplink data transmission" and transmitting from the scheduling base station to at least one other base station "information ... on the applicability of the allocated maximum amount of uplink resources ... on the individual HARQ processes." The Examiners indicated that they would need to conduct an updated search, and that they would either apply new prior art in a new office action or issue a notice of allowance. It was also agreed that the above clarifying amendments would improve the claims.

A summary of the substance of the interview is included in the comments below.

During the interview, it was noted that claim 38 is directed to a method calling for at least one scheduling base station (first base station) to determine scheduling information for a mobile terminal (first mobile terminal) indicative of an allocated maximum amount of uplink resources for the mobile terminal applicable to individual HARQ processes to be used by the mobile terminal (first mobile terminal) for uplink data transmission, and to transmit information indicative of the allocated maximum amount of uplink resources to at least one other base station (second base station) and for the other base station (second base station) to schedule at least one different mobile terminal (second mobile terminal) based on the information received from the scheduling base station (first base station). In this way, the scheduling (first) base station transmits information to the other (second) base station to inform the other (second) base station with respect to the applicability of the allocated maximum amount of uplink resources for uplink data transmissions on the individual HARQ processes. The other (second) base station schedules at least one other (second) mobile terminal in communication with a respective (for example, third) base station based on the information received from the scheduling base station. This can increase the efficiency of soft handover by providing coordination among multiple base stations (see specification paragraph [0095]).

It was noted that Love et al. state in paragraphs [0006] and [0037] that their invention is directed to avoiding the need for communications among the Active Set BTSs, whereas Legg et al., on the other hand, teach a communication scheme which relies on communications among base stations (an inter-base station communication scheme). Thus, the inter-base station communication scheme of Legg et al. contradicts the primary objective of Love et al., and as a result, those skilled in the art would not have been led to combine the teachings of Love et al. and

Legg et al. Specifically, those skilled in the art would not have been led to change the Love et al. system design of transmitting various information from the mobile stations to the base transceivers stations to an inter-BTS communication scheme as proposed in Legg et al., as this would clearly contradict the main advantage of the system of Love et al.

Moreover, even if the teachings of Love et al. and Legg et al. were combined as proposed in the Final Rejection, the result still would lack the subject matter of Applicants' claim 38 directed to communication of "information ... on the applicability of allocated maximum amount of uplink resources ... on the individual HARQ processes." (emphasis added)

Cited paragraph [0018] of Love et al. merely discloses that the mobile station (MS) is scheduled by the base transceiver station (BTS) and that a maximum rate or a maximum power margin is indicated by the scheduler, i.e. the BTS, but paragraph [0018] lacks the feature of Applicants' claim 38 of determining scheduling information indicative of "allocated maximum amount of uplink resources applicable to the individual HARQ processes for uplink data transmission." Although the "maximum rate" is mentioned in Love et al., there is no teaching that this maximum rate is somehow applicable or related to the individual HARQ processes for uplink data transmission. Although Love et al. at various places mention ARQ, HARQ and HARQ retransmissions, no scheduling of HARQ processes nor allocation of uplink resources thereto is mentioned in paragraph [0018] or any other related passage of Love et al.

In Love et al., paragraphs [0013] and [0015] as well as paragraphs [0036] to [0039], mention an "ARQ function." In connection with Fig. 3, Love et al. explain in paragraphs [0036] to [0039] the possibility of distributing the ARQ function wherein the active set BTSs simulcast preformatted frames over the forward link, and mention the signaling, from the mobile station,

from the mobile station 1014, of Transport Format and Resource-related Information (TFRI) which includes "modulation and coding information, incremental redundancy version information, HARQ status information, and transport block size information" (see paragraph [0038]. However, although TFRI includes HARQ-related information (e.g. HARQ status information), there is no hint or suggestion that this would somehow involve an indication of the maximum amount of uplink resources for a HARQ process, as discussed below..

The Final Rejection at pages 3 and 4 alleges that Love et al., paragraphs [0037] to [0039], teach transmitting from a MS to at least one other BTS "information on the applicability of allocated maximum amount of uplink resources for uplink data transmissions." The Final Rejection, however, appears to misconstrue Love et al., given that in Love et al., the scheduling information transmitted from the MS to the BTS of the Active Set does not actually indicate the "allocated maximum amount of uplink resources." Paragraph [0040] states "MS 1014 communicates scheduling information 402 to each Active Set BTS 301, 303, 304 using a first reverse link control channel 406 with a known fixed modulation and coding rate and transport block size." Since channel 406 has a known fixed modulation and coding rate, the scheduling information 402 clearly would not need to indicate this known fixed modulation and coding rate. Further, Love et al. merely state that the scheduling information 402 received at each Active Set BTS 301, 303, 304 from MS 1014 includes at least one of a data queue status and a power status of the mobile station (see paragraphs [0030] and [0041]). Therefore, it is apparent that the TFRI (modulation and coding information, incremental redundancy version information, HARQ status information, and transport block size information from MS 1014) discussed in paragraphs [0037] to [0039] of Love et al. does not correspond to the scheduling information 402, as the

information contained in the TFRI bears no relation to the data queue status and power status of the mobile station. The data queue status and power status signaled by the mobile station within the scheduling information 402 as per Love et al. also are not related to the "information on the applicability of allocated maximum amount of uplink resources for uplink data transmissions" as recited by Applicants' claim 38.

Therefore, in Love et al., scheduling information 402 does not qualify as information on the "applicability of a maximum amount of uplink resources" for uplink transmissions on the "individual HARQ processes" as in Applicants' claim 38.

The Final Rejection admits (see, Office Action page 6, lines 1-2) that Love et al. fails to teach or suggest that information on the applicability of the maximum amount of uplink resources for uplink data transmission on the individual HARQ processes is communicated from one base station to another base station and that this other base station subsequently considers this information in scheduling other mobile terminals. However, not only is this true, but Love et al. also fails to teach or suggest, as shown above, that information on the applicability of the maximum amount of uplink resources for uplink data transmission on the individual HARQ processes is communicated from a mobile station to a base station.

Although Legg et al. teaches the exchange of signaling information between base stations, in particular, the communication of signal level measurements between base stations (see column 6, lines 15-33), it should be noted that the signal level measurements of Legg et al. are not comparable to, and do not teach or suggest, the Applicants' claimed information "to inform the at least one other base station on the applicability of allocated maximum amount of uplink resources for uplink data transmissions on the individual HARQ processes" as in Applicants'

claim 38.

Furthermore, the Applicants note that column 7, lines 6 to 12 of Legg et al., states that the associated base station communicates information on resource allocation to all base stations involved in the soft handover for the user terminal and, upon receiving this information, the non-associated base stations will update their resource allocation so as to support the user terminal according to the resource allocation of the associated base station. However, this passage does not teach the communication of the maximum amount of uplink resources for uplink data transmission allocated to the respective mobile terminal on individual HARQ processes.

Thus, it is submitted that Legg et al. lacks the above-noted features of instant claim 38, and hence, even if Legg et al.'s teachings were incorporated into Love et al., the result still would not achieve the present claimed invention.

Accordingly, it was emphasized during the interview that it would not have been obvious to combine the teachings of Love et al and Legg et al. as proposed in the Final Rejection, and, even if these references were combined, the result still would lack the above-noted features of instant claim 38. Thus, it is submitted that the individual or combined teachings of these references fail to render obvious the subject matter of claim 38.

It was noted that independent claim 61 similarly recites the above-mentioned subject matter distinguishing method claim 38 from the applied references, but with respect to an apparatus. Therefore, the rejections applied to claims 38 and 61 are considered to be obviated and allowance of claims 38 and 61. It was noted that Seo et al. and Zhang et al. were not cited for anything that would cure the above-noted deficiencies of Love et al. and Legg et al. and that all dependent claims are deemed to be allowable.

As noted above, agreement was reached in that the Examiners indicated their view that the presently applied art fails to teach or suggest, alone or together, at least the subject matter of claim 38 including "uplink resources applicable to the individual HARQ processes for the mobile terminal."

A notice of Allowance is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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